=> fil hcaplu

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=> d stat que

L2 24 SEA FILE=HCAPLUS ("VIND JESPER"/AU OR "VIND JESPER"/IN)

L3 146062 SEA FILE=HCAPLUS FUNG? OR POLYNUCLEOTIDE?

L4 14 SEA FILE=HCAPLUS L2 AND L3

=> d ibib abs hitrn 14 1-14

L4 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER:

2001:50780 HCAPLUS Glucoamylase variant

INVENTOR (S):

Nielsen, Bjarne Ronfeldt; Svendsen, Allan; Pedersen,

Henrik; Vind, Jesper; Hendriksen, Hanne

Vang; Frandsen, Torben Peter

PATENT ASSIGNEE(S):

Novo Nordisk A/S, Den.

SOURCE:

TITLE:

PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001004273	A2	20010118	WO 2000-DK373	20000707

```
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
              HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
              LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
              SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
              ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
              CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                               DK 1999-999
                                                                  19990709
     The invention relates to a variant of a parent fungal
      glucoamylase, which exhibits altered properties, in particular improved
      thermal stability and/or increased specific activity.
     ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2001 ACS
L4
                           2000:608878 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                           133:188889
TITLE:
                           Fungal cells with inactivated DNA mismatch
                           repair system and their use as cloning and expression
                           hosts
                           Borchert, Torben Vedel; Christiansen, Lars; Vind,
INVENTOR(S):
                           Jesper
PATENT ASSIGNEE(S):
                           Novo Nordisk A/S, Den.
SOURCE:
                           PCT Int. Appl., 58 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:
                           Patent
                           English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
                           1
PATENT INFORMATION:
     PATENT NO.
                       KIND DATE
                                               APPLICATION NO. DATE
                       ----
                                               -----
     _____
                                         WO 2000-DK63 20000217
     WO 2000050567
                       A1 20000831
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
              CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, NY, KG, KZ, MD, DH, MT, MM,
              BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
              CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                           . DK 1999-253
                                                                  19990224
     A process for making DNA libraries in filamentous fungal cells
AB
     using a novel cloned gene involved in the mismatch repair system of
     filamentous fungal cells is described. By suppressing mismatch
     repair, the loss of sequence diversity is prevented. An electrophoretic
     mobility shift assay for mismatch repair activity is described. A
     mismatch repair gene, msh2, of Aspergillus oryzae was cloned using PCR
     with primers derived from conserved sequences of other mismatch repair
     genes to generate a probe is described. Methods of inactivating the
     endogenous msh2 gene and the development of vectors using it are also
     described.
REFERENCE COUNT:
                           (1) Huber, D; Database SWISS-PROT 1998
REFERENCE(S):
```

(2) Maxygen Inc; WO 9831837 A1 1998 HCAPLUS

308-3278

M. Smith

(3) Setratech; WO 9007576 Al 1990 HCAPLUS (4) Setratech; WO 9705268 A1 1997 HCAPLUS

(5) Setratech S A R L; WO 9737011 A1 1997 HCAPLUS

HCAPLUS COPYRIGHT 2001 ACS ANSWER 3 OF 14 ACCESSION NUMBER: 2000:401977 HCAPLUS

DOCUMENT NUMBER:

133:39882

TITLE:

Glucoamylases with N-terminal extensions displaying

improved thermostability and their uses

INVENTOR (S):

Nielsen, Bjarne Ronfeldt; Svendsen, Allan; Bojsen,

Kirsten; Vind, Jesper; Pedersen, Henrik

PATENT ASSIGNEE(S):

SOURCE:

Novo Nordisk A/S, Den. PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	ENT	NO.		KI:	ND	DATE	DATE APPLICATION NO. DATE											
WO	WO 2000034452			 A	 1	2000	 0615		w	0 19	 99-D	 K686		1999	 1207			
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						EE,												
						KG,												
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	
		SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UΑ,	ŪĠ,	UZ,	VN,	YU,	ZA,	ZW,	AM,	AZ,	
		BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM										
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,	
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	
•		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG					
ORITY	APP	LN.	INFO	. :				DK 1998-1616						19981207				
									D:	K 19:	99-4	09		1999	0324			

AB The invention relates to fungal glucoamylase with N-terminal extensions which exhibit improved thermal stability. Thus, N-terminal extended Aspergillus niger glucoamylase G2 variants were prepd. and their enhanced thermostability demonstrated.

REFERENCE COUNT:

REFERENCE(S):

PR

- (1) Cetus Corporation; WO 8402921 A3 1984 HCAPLUS
- (2) Institut Fur Pflanzengenetik und Kulturpflanzenforschung; DE 4425058 A1 1996 **HCAPLUS**
- (3) National Research Council of Canada; EP 0828002 A2 1998 HCAPLUS
- (4) Novo Nordisk A/S; WO 9704078 1997 HCAPLUS

ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER:

2000:384391 HCAPLUS

DOCUMENT NUMBER:

133:39878

TITLE:

Lipase variants for use in baking or detergents and

method for preparing lipase variants

INVENTOR(S):

Bojsen, Kirsten; Svendsen, Allan; Fuglsang, Klaus Crone; Shamkant, Anant Patkar; Borch, Kim; Vind, Jesper; Petri, Andreas; Glad, Sanne Schroder;

Budolfsen, Gitte

PATENT ASSIGNEE(S):

Novo Nordisk A/S, Den.

09/426,038 Ponnalun

SOURCE:

PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT		KI:		A													
WO					A1 20000608									19991129				
	W:	ΑE,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,	
		CZ,	DΕ,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GΕ,	GH,	GM,	HR,	HU,	ID,	IL,	
		IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LŲ,	LV,	MA,	
		MD,	MG,	MK,	MN,	MW,	ΜX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	
		SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	ŪG,	US,	UΖ,	VN,	YU,	ZA,	ZW,	AM,	
			BY,															
•	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	ŪG,	ZW,	ΑT,	BE,	CH,	CY,	DE,	
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	
			CI,		GΑ,	GN,	GW,	ML,										
PRIORIT	Y APP	LN.	INFO	. :		•					98-1			19981127				
											98-1		•	19981208				
•											99-39	_		1999	0322			
	•									US 1999-126914 19990329								
					99-14			1999										
								•	US	3 199	99-16	5073	5	1999:	L022			

AB The substrate specificity of a lipolytic enzyme can be modified by making alterations to the amino acid sequence in a defined region of the lipolytic enzyme, so as to increase the level of a desired activity or to decrease the level of an undesired activity. Thus, the inventors have developed lipolytic enzyme variants with a modified amino acid sequence with a substrate specificity which can be tailored for specific uses. Thus, many variants of Humicola lanuginosa and of Fusarium oxysporum lipases were prepd. with recombinant Saccharomyces cerevisiae. Variants were prepd. which had phospholipase activity, which had increased specificity for long-chain or for short-chain fatty acids, which had hydrolytic activity towards digalactosyldiglyceride, and which had increased or decreased pH optima. Use of some of the variants in vegetable oil degumming and in baking was demonstrated.

REFERENCE COUNT:

10

REFERENCE(S):

- (1) Anon; WO 9205249 HCAPLUS
- (2) Anon; WO 9401541 HCAPLUS
- (3) Atomi; Proc World Congr Int Soc Fat Res 1996, V1, P49 HCAPLUS
- (5) Bachmatova, I; Biologija 1995, 1-2, P57 HCAPLUS
- (8) Novo Nordisk AS; WO 9205249 A1 1992 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 2000:383958 HCAPLUS

DOCUMENT NUMBER:

133:34291

TITLE:

Anti-dandruff composition comprising an antifungal

polypeptide

INVENTOR(S):

Vind, Jesper; Sorensen, Niels Henrik

PATENT ASSIGNEE (S): Novo Nordisk A/s, Den. PCT Int. Appl., 54 pp. SOURCE:

CODEN: PIXXD2

M. Smith 308-3278

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE --------------WO 2000032220 A1 20000608 WO 1999-DK659 19991126 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG PRIORITY APPLN. INFO.: DK 1998-1579 The present invention relates to an anti-dandruff compn. comprising an antifungal polypeptide, to the use of an antifungal polypeptide for the treatment or prophylaxis of dandruff, to a method for the treatment or prophylaxis of dandruff, and to the use of an antifungal polypeptide for the prepn. of a compn. for the treatment or prophylaxis of dandruff. antifungal polypeptide, a 51 amino acid-contg. peptide, obtained from Aspergillus species, efficiently impedes the growth of the yeast P. ovale , even in low concns. Shampoo compns. contg. the peptide are given. REFERENCE COUNT: REFERENCE(S): (1) Beiersdorf Ag; WO 9722624 A2 1997 HCAPLUS (2) Novo Nordisk AS; WO 9401459 A1 1994 HCAPLUS T.4 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 2000:291226 HCAPLUS DOCUMENT NUMBER: 132:319501 TITLE: Methods of constructing and screening a DNA library of interest in filamentous fungal cells INVENTOR(S): Vind, Jesper PATENT ASSIGNEE(S): Novo Nordisk A/s, Den. SOURCE: PCT Int. Appl., 81 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT NO	•	KIN	ID I	OATE			APPLICATION NO. DATE								
WO 200002	 4883	A1 20000504					W.	0 19	 99-DI	 K552		 1999	1013		
	E, AL,													CR,	CU,
С	Z, DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	ΗU,	ID,	IL,
I:	N, IS,	JP,	KΕ,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,
M	D, MG,	MK,	MN,	MW,	ΜX,	NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,
S	K, SL,	ТJ,	TM,	TR,	TT,	ΤZ,	UA,	ŪĠ,	UΖ,	VN,	YU,	ZA,	ZW,	AM,	AZ,
B'	Y, KG,	ΚZ,	MD,	RU,	ТJ,	TM									
RW: G	H, GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,
D:	K, ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
. C	G, CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG				

PATENT INFORMATION:

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AU 9961885
                            20000515
                       A1
                                           AU 1999-61885
                                                            19991013
PRIORITY APPLN. INFO.:
                                           DK 1998-1375
                                                           19981026
                                           DK 1999-718
                                                           19990525
                                           WO 1999-DK552
                                                           19991013
AB
     The invention provides a method of constructing and screening a library of
     polynucleotide sequences of interest in filamentous fungal
     cells by use of an episomal replicating AMA1-based plasmid vector, thus
     achieving a high frequency of transformation and a stable and std.
     uniformly high level of gene expression.
REFERENCE COUNT:
REFERENCE(S):
                         (1) Aleksenko, A; Fungal Genetics and Biology 1997,
                             V21, P373 HCAPLUS
                         (2) Aleksenko, A; Mol Gen Genet 1996, V253, P242
                             HCAPLUS
                         (3) Alexei, A; Molecular Microbiology 1996, V20(2),
                             P427
                         (4) Gems, D; Curr Genet 1993, V24, P520 HCAPLUS
     ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2001 ACS
L4
ACCESSION NUMBER:
                         2000:68546 HCAPLUS
DOCUMENT NUMBER:
                         132:104698
TITLE:
                         Glucoamylase variants with improved specific activity
                         and/or thermostability
INVENTOR(S):
                         Nielsen, Bjarne Ronfeldt; Svendsen, Allan; Pedersen,
                         Henrik; Vind, Jesper; Hendriksen, Hanne
                         Vang; Frandsen, Torben Peter
PATENT ASSIGNEE(S):
                        Novo Nordisk A/S, Den.
                         PCT Int. Appl., 117 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                     ----
                                          -----
                                     WO 1999-DK392 19990709
     WO 2000004136
                    A1 20000127
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
            JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
            TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
            RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                      A1 20000207
    AU 9947699
                                        AU 1999-47699
                                                           19990709
PRIORITY APPLN. INFO.:
                                        DK 1998-937
                                                           19980715
                                          DK 1998-1667
                                                           19981217
```

AB The invention relates to a variant of a parent **fungal** glucoamylase, which exhibits improved thermal stability and/or increased specific activity using saccharide substrates. The x-ray structure and/or model-build structure of Aspergillus awamori variant X100 glucoamylase was subjected to mol. dynamics simulations to identify regions important for temp.-stable activity. The truncated G1 glucoamylase from Aspergillus

WO 1999-DK392

19990709

09/426,038 Ponnalun

niger was modified by (1) random mutagenesis, (2) localized random, doped mutagenesis, or (3) PCR shuffling spiked with DNA oligonucleotides in order to prep. variants having improved thermostability compared to the parent enzyme. Such glucoamylase variants have use in starch saccharification, oligosaccharide prodn., specialty syrups, producing ethanol for fuel, producing beverages, and producing org. compds. (citric acid, ascorbic acid, lysine, glutamic acid).

REFERENCE COUNT:

REFERENCE(S):

- (1) Chen, H; Protein Eng (ENGLAND) 1995, V8(6), P575 HCAPLUS
- (2) Fierobe, H; Biochemistry (UNITED STATES) 1996, V35(26), P8696 HCAPLUS
- (3) Iowa State University Research Foundation Inc; WO 9803639 A1 1998 HCAPLUS
- (4) Novo Nordisk AS; WO 9200381 A1 1992 HCAPLUS

ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2001 ACS T.4 ACCESSION NUMBER: 1999:239286 HCAPLUS

DOCUMENT NUMBER:

131:16292

TITLE:

AUTHOR(S):

Direct evolution of a fungal peroxidase Cherry, Joel R.; Lamsa, Michael H.; Schneider, Palle;

Vind, Jesper; Svendsen, Allan; Jones, Aubrey;

Pedersen, Anders H.

CORPORATE SOURCE:

Novo Nordisk Biotech, Inc., Davis, CA, 95616, USA

SOURCE:

Nat. Biotechnol. (1999), 17(4), 379-384

CODEN: NABIF9; ISSN: 1087-0156

PUBLISHER:

Nature America

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The Coprinus cinereus (CiP) heme peroxidase was subjected to multiple rounds of directed evolution in an effort to product a mutant suitable for use as a dye transfer inhibitor in laundry detergent. The wild-type peroxidase is rapidly inactivated under laundry conditions due to the high pH (10.5), high temp. (50.degree.C), and high peroxide concn. (5-10 mM). Peroxidase mutants were initially generated using two parallel approaches: site-directed mutagenesis based on structure-function considerations, and error-prone PCR to create random mutations. Mutations were expressed in Saccharomyces cerevisiae and screened for improve stability by measuring residual activity after incubation under conditions mimicking those in a washing machine. Manually combining mutations from the site-directed and random approaches led to a mutant with 110 times the thermal stability and 2.8 times the oxidative stability of wild-type CiP. In the final two rounds, mutants were randomly recombined by using the efficient yeast homologous recombination system to shuffle point mutations among a large no. of parents. This in vivo shuffling led to the most dramatic improvements in oxidative stability, yielding a mutant with 174 times the thermal stability and 100 times the oxidative stability of wild-type CiP.

REFERENCE COUNT:

19

REFERENCE(S):

- (1) Abelskov, A; Biochemistry 1997, V36, P9453 HCAPLUS
- (2) Cannon, J; Molec Cell Biol 1987, V7, P2653 HCAPLUS
- (3) Crameri, A; Nature 1998, V391, P288 HCAPLUS
- (5) Kunishima, N; J Mol Biol 1994, V235, P331 HCAPLUS
- (6) Landt, O; Gene 1990, V96, P125 HCAPLUS ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER:

1998:640366 HCAPLUS

DOCUMENT NUMBER:

129:255993

TITLE:

An in vitro primer extension method for construction

of a DNA library of overlapping sequences

INVENTOR(S):

Vind, Jesper

PATENT ASSIGNEE(S): SOURCE:

Novo Nordisk A/S, Den. PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION: DD. M.D. 110

PA'	TENT 1		KI	ND	DATE							DATE					
WO	9841	653		A	1	1998	0924				 98-D		1998031				
						AZ,											
						GB,											
		KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,
		NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,
						YU,											•
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SZ,	υG,	ZW,	ΑT,	BE,	CH,	DE,	DK,	ES,	FI,
		FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,
						NE,											
AU	9866	115		A.	1	1998	1012		Α	J 19	98-6	6115		1998	0318		
EP	9739																
						DK,										ΙE,	FI
	98083																
US	61596	587		A		2000:	1212		US	5 199	98-40	0697		1998	0318		
PRIORIT	(APPI	LN.	INFO	::					Di	< 195	97-30	07	,	1997	0318		
									DF	(19	97-43	34		1997	0417		
									DF	(19	97-62	25	;	1997	0530		
									US	199	97-44	4836	;	1997	0425		
									US	3 199	97-53	3012		1997	0624		
									WC	199	98-DI	<104		19980	0318		

AB A method of constructing libraries of overlapping sequences using rounds of primer extension to is described. A first round of primer extension is used to generate extended primers that are sepd. from the template DNA. The template is then shifted by using the extended primers as both primers and templates or by repeating the first stage of the process. The process is then repeated as often as necessary to obtain the desired bank. Optionally the polynucleotides are amplified in a a std. PCR reaction with specific primers to selectively amplify homologous polynucleotides of interest. The method is particularly intended to obtain sequences encoding specific domains of proteins for use in protein engineering by domain shuffling. Error-prone amplification can be used to generate pools of variants. The use of the method on pools of Humicola lanuginosa lipase variants to generate new variants is demonstrated.

ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER:

1997:240584 HCAPLUS

DOCUMENT NUMBER:

126:222277

TITLE:

Recombinant lipases with C- and/or N-terminal

extensions and their use in detergents

INVENTOR(S):

Fuglsang, Claus Crone; Okkels, Jens Sigurd; Petersen,

Dorte Aaby; Patkar, Shamkant Anant; Thellersen,

Marianne; Vind, Jesper; Halkier, Torben;

Joergensen, Steen Troels; et al.

PATENT ASSIGNEE(S): Novo Nordisk A/s, Den.; Fuglsang, Claus Crone; Okkels,

Jens Sigurd; Petersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier,

Torben

SOURCE: PCT Int. Appl., 191 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

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									WC	199	96-DI	K322		19960	712		

AΒ The invention relates to a modified enzyme with lipolytic activity recovered from a filamentous fungi or a bacteria having one or more peptide addns. at the N-terminal and/or the C-terminal ends in comparison to the parent enzyme. The peptide addns. significantly improve the washing performance of the lipase. Further, the invention relates to a DNA sequence encoding said modified enzyme, a vector comprising said DNA sequence, a host cell harboring said DNA sequence or said vector, and a process for producing said modified enzyme with lipolytic activity. The lipase variants are useful in detergent compns. Numerous lipase variants contg. substitution mutations and C- and/or N-terminal addns. were prepd. with recombinant Aspergillus oryzae or with Escherichia coli. The addn. of SPIRR to the N-terminus of Humicola lanuginosa lipase increased the wash performance relative to the parent enzyme twofold.

ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1997:220628 HCAPLUS

DOCUMENT NUMBER: 126:208956

TITLE:

Recombinant lipases with C- and/or N-terminal

extensions and their use in detergents

INVENTOR(S): Fuglsang, Claus Crone; Okkels, Jens Sigurd; Pertersen,

Dorte Aaby; Patkar, Shamkant Anant; Thellersen,

M. Smith 308-3278

Marianne; Vind, Jesper; Halkier, Torben;

Joergensen, Steen Troels; et al.

PATENT ASSIGNEE(S): Novo Nordisk A/s, Den.; Fuglsang, Claus Crone; Okkels,

Jens Sigurd; Pertersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier,

Torben

SOURCE: PCT Int. Appl., 197 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.				KIND DATE										DATE			
	WO	9704	 078				1997	.9970206 WO					1996-DK321					
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•			ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA.	•	•
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PRIO	RITY	APP:	LN.	INFO	.:					DI	K 19	95-8	32		1995	0714		
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										US	199	96-20	0416		19960	0507		
										W	199	96-DI	K321		19960	0712		

ΔR The invention relates to a modified enzyme with lipolytic activity recovered from a filamentous fungi or a bacteria having one or more peptide addns. at the N-terminal and/or the C-terminal ends in comparison to the parent enzyme. The peptide addns. significantly improve the washing performance of the lipase. Further, the invention relates to a DNA sequence encoding said modified enzyme, a vector comprising said DNA sequence, a host cell harboring said DNA sequence or said vector, and a process for producing said modified enzyme with lipolytic activity. The lipase variants are useful in detergent compns. Numerous lipase variants contg. substitution mutations and C- and/or N-terminal addns. were prepd. with recombinant Aspergillus oryzae or with Escherichia coli. The addn. of SPIRR to the N-terminus of Humicola lanuginosa lipase increased the wash performance relative to the parent enzyme twofold.

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ANSWER 12 OF 14
                HCAPLUS COPYRIGHT 2001 ACS
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ACCESSION NUMBER: 1995:400053 HCAPLUS

DOCUMENT NUMBER: 122:181667

CORPORATE SOURCE:

TITLE: Disulfide bonds and glycosylation in fungal

peroxidases

AUTHOR (S): Limongi, Paola; Kjalke, Marianne; Vind, Jesper

> ; Tams, Jeppe W.; Johansson, Tomas; Welinder, Karen G. Department of Protein Chemistry, Univ. of Copenhagen,

Copenhagen, DK-1353, Den.

M. Smith 308-3278

SOURCE: Eur. J. Biochem. (1995), 227(1/2), 270-6

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal LANGUAGE: English

Four conserved disulfide bonds and N-linked and O-linked glycans of extracellular fungal peroxidases have been identified from studies of a lignin and a manganese peroxidase from Trametes versicolor, and from Coprinus cinereus peroxidase (CIP) and recombinant C. cinereus peroxidase (rCIP) expressed in Aspergillus oryzae. The eight cysteine residues are linked 1-3, 2-7, 4-5 and 6-8, and are located differently from the four conserved disulfide bridges present in the homologous plant peroxidases. CIP and rCIP were identical in their glycosylation pattern, although the extent of glycan chain heterogeneity depended on the fermn. batch. CIP and rCIP have one N-linked glycan composed only of GlcNAc and Man at residue Asn142, and two O-linked glycans near the C-terminus. major glycoform consists of single Man residues at Thr331 and at Ser338. T. versicolor lignin isoperoxidase TvLP10 contains a single N-linked glycan composed of (GlcNAc)2Man5 bound to Asn103, whereas (GlcNAc)2Man3 was found in T. versicolor manganese isoperoxidase TvMP2 at the same position. In addn., mass spectrometry of the C-terminal peptide of TvMP2 indicated the presence of five Man residues in O-linked glycans. No phosphate was found in these fungal peroxidases.

L4 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1995:50558 HCAPLUS

DOCUMENT NUMBER: 122:48019

TITLE: Expression cloning, purification and characterization

of a .beta.-1,4-mannanase from Aspergillus aculeatus

AUTHOR(S): Christgau, Stephan; Kauppinen, Sakari; Vind,

Jesper: Kofod, Lene V.; Dalboege, Henrik

CORPORATE SOURCE: GeneExpress, Novo Nordisk A/S, Copenhagen, DK-2100,

Den.

SOURCE: Biochem. Mol. Biol. Int. (1994), 33(5), 917-25

CODEN: BMBIES

DOCUMENT TYPE: Journal LANGUAGE: English

AB A cDNA library from the filamentous fungus A. aculeatus was constructed in the yeast expression vector pYES2.0 and used to isolate 57 full length cDNAs encoding endo-.beta.-1,4-mannanase (I) by expression in S. cerevisiae. The pos. clones were identified on agar plates contg. 0.2% azurine-dyed crosslinked mannan by the formation of blue halos around the colonies. All clones represented transcripts of the same I gene (man1). The gene was subcloned into an Aspergillus expression vector and transformed into A. oryzae for overexpression and purifn. of the enzyme. Recombinant I had a mol. wt. of 45 kDa, a pI of 4.5, a pH optimum of pH 5.0, and a temp. optimum of 60-70.degree.

L4 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1994:453072 HCAPLUS

DOCUMENT NUMBER: 121:53072

TITLE: NMR studies of recombinant Coprinus peroxidase and

three site-directed mutants. Implications for

peroxidase substrate binding

AUTHOR(S): Veitch, Nigel C.; Tams, Jeppe W.; Vind, Jesper

; Dalboege, Henrik; Welinder, Karen G.

CORPORATE SOURCE: Jodrell Lab., R. Bot. Gardens, Richmond, UK

M. Smith 308-3278

09/426,038 Ponnalun

SOURCE:

Eur. J. Biochem. (1994), 222(3), 909-18

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE:

Journal

English LANGUAGE: AB

Proton NMR spectroscopy has been used to characterize and compare wild-type fungal and recombinant Coprinus cinereus peroxidase (CIP) and three mutants in which Gly156 and/or Asn157 was replaced by Phe. Anal. of one- and two-dimensional NMR spectra of recombinant CIP was undertaken for comparison with the fungal enzyme and in order to est. a meaningful basis for soln. studies of CIP mutants. Proton resonance assignments of heme and heme-linked residues obtained for the cyanide-ligated form of recombinant CIP revealed a high degree of spectral similarity with those of lignin and manganese-dependent peroxidases and extend previously reported NMR data for fungal CIP. The three mutants examd. by NMR spectroscopy comprised site-specific substitutions made to a region of the structure believed to form part of the peroxidase heme group access channel for substrate and ligand mols. Proton resonances of the arom. side-chains of Phe156 and Phe157 were found to have similar spectral characteristics to those of two phenylalanine residues known to be involved in the binding of arom. donor mols. to the plant peroxidase, horseradish peroxidase isoenzyme C. The results are discussed in the context of complementary reactivity studies on the mutants in order to develop a more detailed understanding of arom. donor mol. binding to fungal and plant peroxidases.

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     2000:608878 HCAPLUS
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     Fungal cells with inactivated DNA mismatch repair system and
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     their use as cloning and expression hosts
     Borchert, Torben Vedel; Christiansen, Lars; Vind, Jesper
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     Novo Nordisk A/S, Den.
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     PCT Int. Appl., 58 pp.
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     CODEN: PIXXD2
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PRAI DK 1999-253
                     19990224
RE.CNT 5
RE
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(2) Maxygen Inc; WO 9831837 Al 1998 HCAPLUS
(3) Setratech; WO 9007576 A1 1990 HCAPLUS
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(5) Setratech S A R L; WO 9737011 A1 1997 HCAPLUS
     ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2001 ACS
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ΑN
     2000:401977 HCAPLUS
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     Glucoamylases with N-terminal extensions displaying improved
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     thermostability and their uses
     Nielsen, Bjarne Ronfeldt; Svendsen, Allan; Bojsen, Kirsten; Vind,
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     Jesper; Pedersen, Henrik
     Novo Nordisk A/S, Den.
PA
     PCT Int. Appl., 61 pp.
SO
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    DK 1999-409
RE.CNT 4
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(2) Institut Fur Pflanzengenetik und Kulturpflanzenforschung; DE 4425058 A1
    1996 HCAPLUS
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    Lipase variants for use in baking or detergents and method for preparing
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Ponnalun 09/426,038 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2001 ACS AN 2000:383958 HCAPLUS DN 133:34291 Anti-dandruff composition comprising an antifungal polypeptide TΙ IN Vind, Jesper; Sorensen, Niels Henrik Novo Nordisk A/s, Den. PA SO PCT Int. Appl., 54 pp. CODEN: PIXXD2 DT Patent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE <u>----</u> PΙ WO 2000032220 A1 20000608 WO 1999-DK659 19991126 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG PRAI DK 1998-1579 19981130 RE.CNT 2 RE (1) Beiersdorf Ag; WO 9722624 A2 1997 HCAPLUS (2) Novo Nordisk AS; WO 9401459 A1 1994 HCAPLUS L3 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2001 ACS ΑN 2000:291226 HCAPLUS 132:319501 DN Methods of constructing and screening a DNA library of interest in TΙ filamentous fungal cells Vind, Jesper IN PΑ Novo Nordisk A/s, Den.

PCT Int. Appl., 81 pp.

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CODEN: PIXXD2

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     Direct evolution of a fungal peroxidase
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     Cherry, Joel R.; Lamsa, Michael H.; Schneider, Palle; Vind, Jesper
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